

# NW 70<sup>th</sup> Ave Improvements

November 25, 2014 – Grimes Council Meeting

Dave Cubit - City of Johnston Public Works Director

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# Proposed Design – NW 107<sup>th</sup> Street



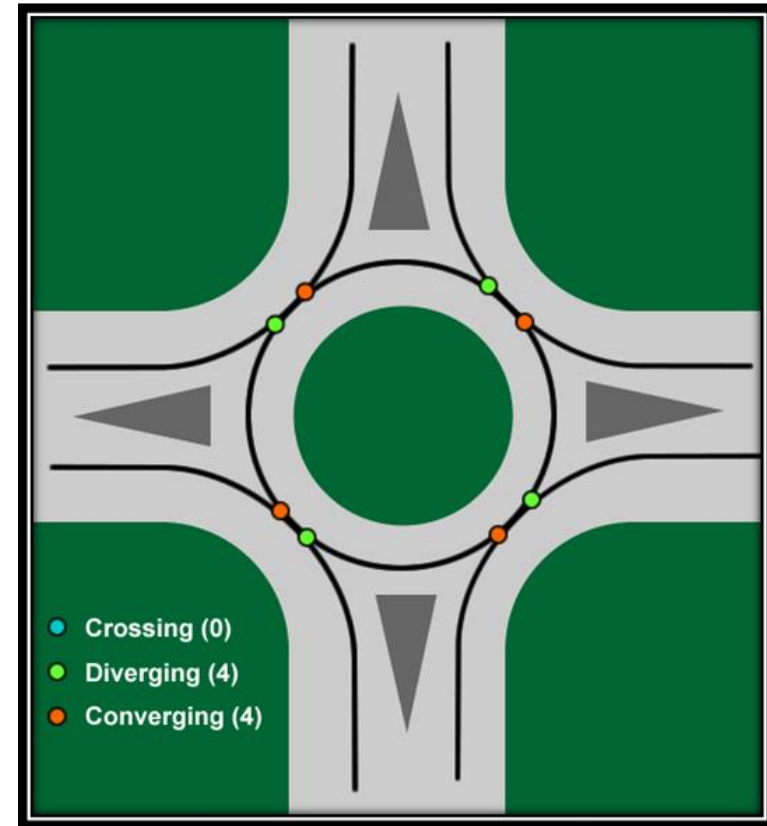
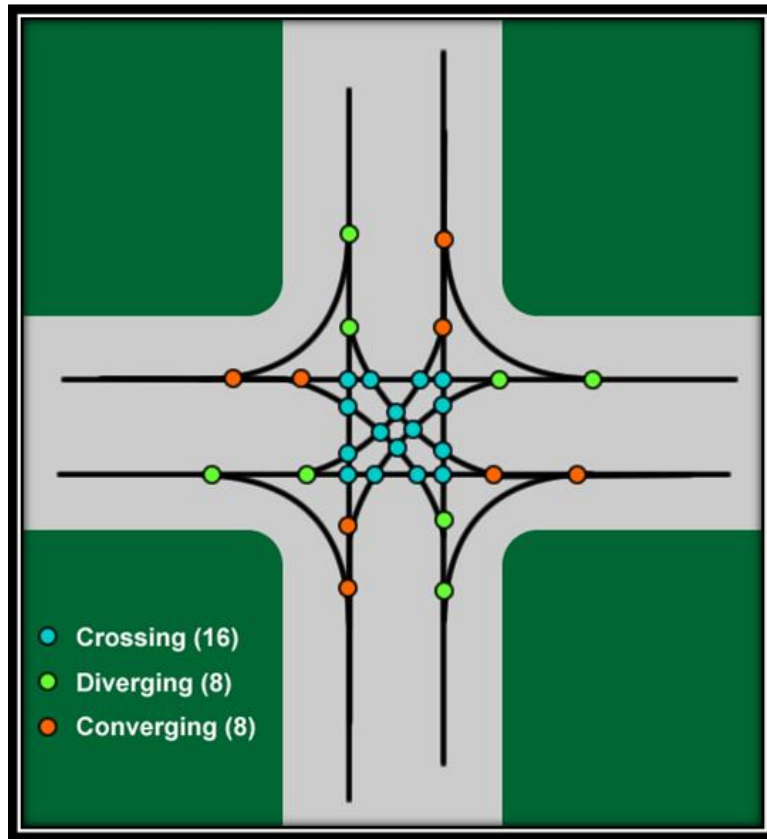
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# Safety

## ❖ Improve Safety

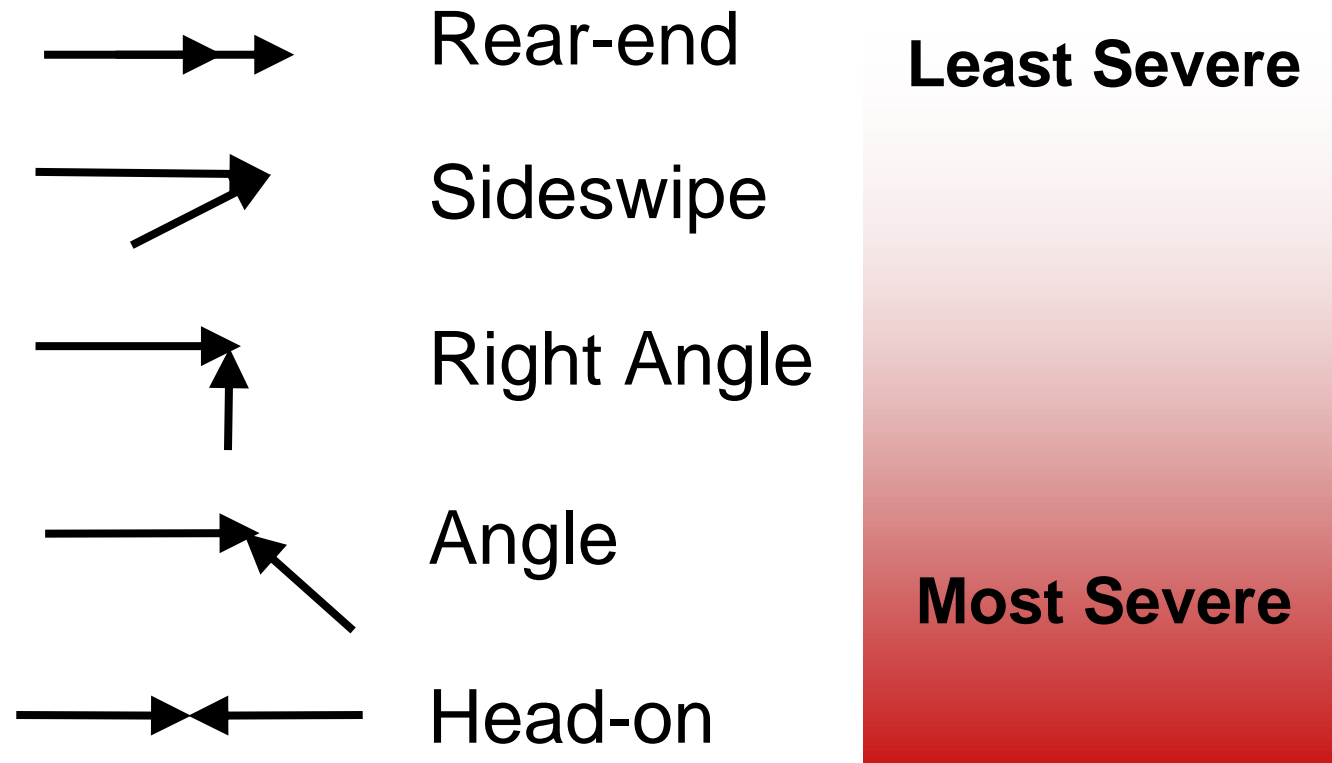
- ▶ 51% reduction in injury crashes
- ▶ 29% reduction in property damage crashes
- ▶ 37% reduction in all crashes

# Safety - Reduced Vehicle Conflict Points



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# Safety – Accident Severity Reduced

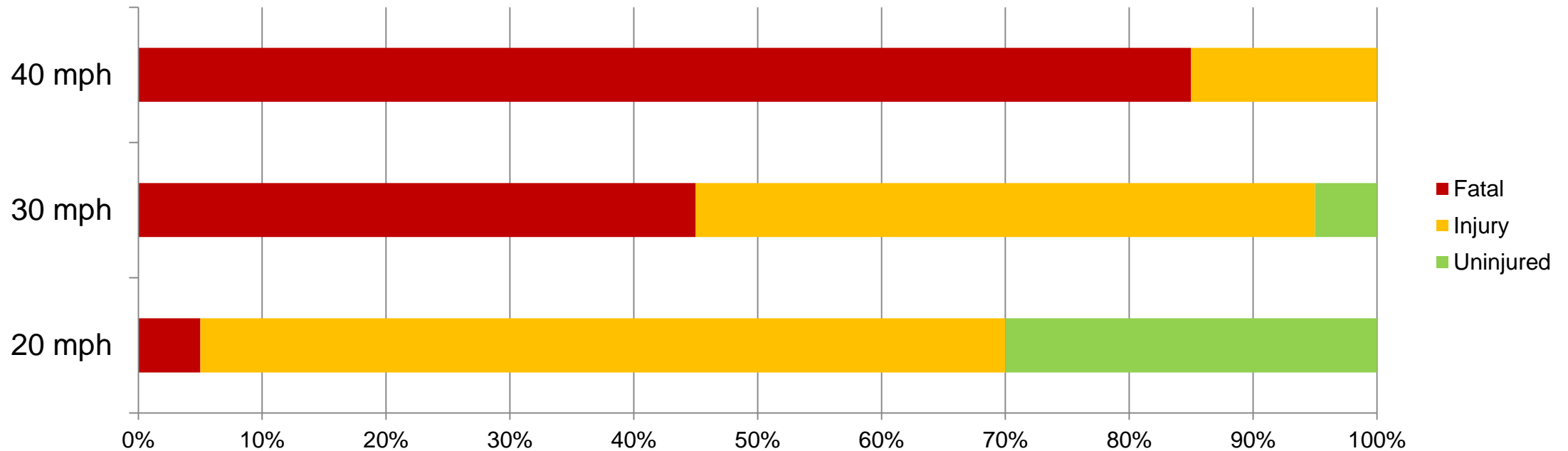


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# Safety – Pedestrian Risk Reduced Slower Speeds are Safer for Pedestrians

## Pedestrian Injury Severity Based on Vehicle Speed

Source: FHWA Traffic Advisory Unit (1993)



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# Corridor Operations

- ❖ Reduces corridor delay
- ❖ Eliminates traffic signals
- ❖ Keeps traffic moving
- ❖ Efficient during all hours



# NW 70<sup>th</sup> & NW 107<sup>th</sup> Intersection

## Cost Comparison

Item	Unit Price	Traditional Intersection		Roundabout	
		Quantity (SY)	Cost	Quantity (SY)	Cost
9" PCC	\$ 52.00	8067	\$ 419,484.00	8295	\$ 431,340.00
5" TRAIL	\$ 45.00	1170	\$ 52,650.00	1200	\$ 54,000.00
9" PCC COLORED	\$ 120.00	0	\$ -	452	\$ 54,240.00
TRAFFIC SIGNAL	\$ 250,000.00	1	\$ 250,000.00	0	\$ -
TOTAL		9238	\$ 722,134.00	9947	\$ 539,580.00